

Teacher Training and Pedagogical Assistance in Distance Education

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Abstract— The present study aims to understand the teacher training and pedagogical assistance processes in distance education (EaD). The study is a bibliographic research based on some authors, the current legislation on the distance education, among others. We identified that the distance teacher training has legal protection, which legitimizes, organizes and operationalizes its action in Brazil. Through didactic-methodological mediation and the use of TIC, it is possible to overcome the distance in the time and space in which the distance formative processes take place. Furthermore, the knowledge acquisition is possible in the Virtual Learning Environment, when the tutor, as mediator of the learning process stimulates and challenges students to reflect and build their knowledge individually or collectively with their colleagues in this cyberspace training. Through the proposed reflections, the present study contributes to understanding the distance education for teacher training, besides the criticisms that this education model receives in the educational scenario.

Keywords— Distance Education (EaD), Pedagogical assistance, Teacher training.

I. INTRODUCTION

The teacher training process is one of the topics that covers big discussions in the educational scenario, especially regarding the environment where it takes place. It is stated that the teacher formative processes are constituted in practice, in the daily actions. Therefore, "... the exercise of training teachers can lead to unveiling and reflecting on the possibilities and limitations of each perspective or trend, in the most different aspects of this formation" [1].

The different aspects that permeate the teacher training process cover the diversity in the teaching modalities, as presence, semi-presence and distance. Currently, we are experiencing a situation of big changes in the legislation that regulates teacher education in Brazil, mainly after the promulgation of the Law on the Guidelines and Bases of National Education [2]. Diverse "[...] Decrees, Opinions and Resolutions aim to regularize and finalize a stage of proposals for educational reform in the field of teacher training" [3].

As an example, [4] states in its Article 1, the definition of this teaching modality, "[...] in which the didactic-pedagogical mediation in the teaching and learning processes occurs with the use of means of communication and information technologies. The

students and teachers develop educational activities in different places or times." [4].

In the process of distance teaching, teachers and students are physically separated in space and/or time. This type of education requires the intense use of information and communication technologies, with or not present face-to-face moments [5]. In other words, although this does not require physical contact between teacher and student, it does not mean that they do not interact with each other, since the digital technologies overcome this contact.

Thus, considering the process of teacher education, especially, the distance education, warm discussions have happened, on the one hand in defense of this training model, but on the other, it is target of various criticisms. [6] point out that since the 1990s, the advancement of digital technologies and the spread of the Internet allowed the distance education process to gain a greater accessibility to information in solving problems related to the democratization of education, both in initial and continuing education of professionals from different areas.

The growing demand for distance undergraduate courses highlights the importance to turn our attention to this theme. Distance teacher training happens through the

interaction between teachers and students in the Virtual Learning Environment (VLE), a space for learning and exchanging of experiences. This interaction allows "the development of learning by interacting with others, aiming at searching for new possibilities of acting in the reality of the school" [6].

In this context, it is a fact that education has an important role in human formation and especially in the constitution of critical and autonomous individual. According to Paulo Freire's conceptions, education should always be a possibility of humanization, and it is a role played by teachers. Therefore, it should be the way to train the future professionals in the process of distance education.

The present study is a bibliographic research. According to [7], "[...] bibliographic research is usually developed as part of a wider research, aiming at identifying the available knowledge on the subject, the best formulation of the problem or the construction of hypotheses". In order to achieve the objectives, the research is carried out in stages including the choice of theme, bibliographical survey, search of sources, reading of the material, and the preparation of the paper.

Bibliographic researches are necessary to increase the knowledge of researchers on the investigated subject, mainly, for the elaboration of the Doctoral Thesis in Education, as it happens in the Postgraduate Program in Education (PPGE) at Federal University of Piauí (UFPI). This study was carried out based on books, legislation on teacher education and distance education, and scientific articles in the area. The theoretical part of the research is structured based on the conceptions of [3], [5], [6], [8]-[12], and the current legislations such as [2], [4], among others.

Therefore, the study is extremely relevant for teacher training, regarding the distance modality, due the fact that it instigates us to reflect on this new configuration of teacher formation that is present in the educational scenario. This modality of teaching has its peculiarities and that differs from the face-to-face modality in concepts, form of execution and organization. Finally, distance teacher training has been consolidating over the years with the advent of Information and Communication Technologies (ICT).

Thus, this study aims to understand the process of distance teacher training and the pedagogical assistance process, by addressing the laws that regulate this modality of teaching and its training context.

Next, we present some reflections on the distance teaching and the teachers training in this modality of teaching.

II. DISTANCE EDUCATION (EAD): CONCEPTS AND REFLECTIONS

In order to formulate a conceptual consensus on distance education, in the recent years, several discussions have permeated this field of education. The debates address the issue of quality (the problem of lack of quality) in this modality. This theme, on the other hand, is correlated with teaching activity, and frequently ignore the effort that undergraduate courses have made in to improve their performance, undertaking a constant struggle against the adversities faced by this modality of teaching.

In Brazil, the legal bases for the EaD were established by the Law on Education Guidelines [4], which allowed offering Distance Education for all levels and modalities of education. On December 10th, 2004, the MEC Ordinance n. 4.059 established the offer of Distance Education in the scope of higher education [13]. Subsequently, the Decree n°. 5.622 regulated it, on December 19th, 2005.

Thus, LDB/1996 presents in its Art. 80, the general provisions that determine the Distance Education. In paragraph 4, it states that the EaD will have a differentiated treatment, which includes:

- I - reduced transmission costs in commercial sound broadcasting and imaging channels;
- II - channels exclusively for educational purposes;
- III - minimum time reserve, free of charge to the Public Authorities, by commercial channel concessionaires [2]

Thus, it is noticed a preoccupation with the educational policies related to this modality of education. The concept of Distance Education is officially defined in the Decree n°. 5.622, dated on December 19th, 2005:

Art. 1°. For the purposes of this Decree, Distance Education is characterized as an educational modality in which didactic-pedagogical mediation in teaching and learning processes occurs by using information and communication media and technologies, with students and teachers developing educational activities in different places or times [4].

In its Article 2, the Decree establishes that EaD can be offered in the following levels and educational modalities: basic education; youth and adult education; special education and professional education [4].

Thus, in 2005, the Ministry of Education created the Open University System (UAB) in Brazil, as a partnership with the National Association of Directors of Federal Institutions of Higher Education (ANDIFES) and State Companies, within the framework of the State Forum Education, focusing on Policies and Management of Higher Education. It is a public policy of articulation between the Special Secretariat of Distance Education (SEED/MEC) and the Directorate of Distance Education (DED/CAPES), aiming the expansion of higher education, as proposed in the Education Development Plan (PDE).

The UAB was established by the Decree 5.800, from June 8th, 2006, and it states "[...] the development of the distance education modality, in order to expand and internalize the offer of courses and programs of higher education in the country." According to the single paragraph of the decree, the UAB's objective is to foment the modality of distance education in public higher education institutions, supporting the researches in innovative methodologies of higher education supported in information and communication technologies [14].

According to the Article 1^o, the UAB aims to use the distance education to broaden and internalize the offer of courses and programs of higher education. In addition, the UAB offers initial training to teachers in effective exercise in public basic education, who do not have a degree and continuing education for those graduates. In its proposal, it intends to offer courses to managers and other professionals from public networks that offer basic education. Moreover, the program intend to reduce inequalities in the supply of higher education, and to develop a broad national system of distance higher education [14]. It was noted that at Federal University of Piauí, the Center for Open and Distance Education (CEAD / UFPI) has its courses available in accordance with the Decree n. 5,800/2006, with 30 (thirty) courses offered, 15 (fifteen) are undergraduate courses and 15 (fifteen) graduate courses [12]. Currently, the courses are distributed in 42 poles of face-to-face support, 40 in the State of Piauí and 02 poles in the State of Bahia. There are also, 02 master's degrees in Public Administration and Philosophy.

In order to get in the courses, the students should apply to a Selective Process (Vestibular), organized by the Permanent Selection Committee (COPESE) from UFPI. [12] reports the number of students enrolled in the CEAD/UFPI, the total number of students in the undergraduate courses corresponds to 62.85% of the total number of students enrolled in this type of

education. Therefore, it is highlighted the necessity of discussing the teacher training in the CEAD/UFPI.

In this training model, teachers and students are separated in space and/or time. This type of education is carried out through the intense use of Information and Communications Technology (ICT), and may or may not present face-to-face moments [5]. Thus, it does not require physical contact between teacher/student, but does not mean that they do not interact with each other, through the digital technologies that overcome this contact.

In this way, we understand that EAD was designed to overcome problems of time and space in the educational context, but without minimizing the importance of developing appropriate teaching tools and methods. Therefore, [15] states that "Distance Education does not only refer to the physical distance between student and teacher, but the infrastructure and interactive processes that allow them get pedagogically close." Therefore, didactic-pedagogical mediation provides effective learning, through the interaction between teacher and student in the virtual environment by using ICT.

Regarding physical separation and the use of ICTs, [11] states that when the teaching process occurs between teacher and student separated (in time or space), this distance can be overcome by the use of technologies, which bring them closer to the virtual environment.

[16] defines the EaD as "[...] an evolutionary process that began with the approach to the physical separation of people and reaches the process of communication, including, at the end of the XX century, technologies of information." This definition reaffirms the conceptions of [11], on this question.

Thus, [10] proposes a new pedagogic model in the Distance Education system, which provides both personalized learning and collective learning. Therefore, regarding the teaching and learning process in the EaD, we can highlight that the overcoming of time and space is established by the use of educational technologies, which brings teacher and student in the Virtual Learning Environment (VLE).

In addition, the EaD provides an opportunity for those who are excluded from the regular system of education, such as students and workers residing far from a higher education institution. They would have many physical, mental and financial issues to attend a daily and face-to-face course.

Therefore, it should be highlighted that EaD normally requires less financial investment from the

students, or as [5] states, "[...] the cost is undoubtedly a huge attraction of the EaD." In addition, the geographical aspect (reaching marginalized populations, outside the educational centers), the great impact, the convenience of access (at home, at work, cybers, educational poles), the possibility of respecting the learning times of the students, the different methodologies to reach the learning objectives, and it is a form of technological inclusion.

III. TEACHER TRAINING IN EAD: MEDIATING KNOWLEDGE

Due to the increasing demand for distance learning Undergraduate courses, it is increasingly necessary to discuss teacher training and how these professionals are being trained. In this discussion, [17] defines teacher education as being:

[...] area of knowledge, research, and theoretical and practical proposals that, regarding the Didactics and School Organization, studies the processes through which teachers - in training or in practice - are involved individually or in teams, in learning experiences. through which acquire or improve their knowledge, skills and dispositions, These experiences enable them to intervene professionally in the development of their education, curriculum and school, with the aim of improving the quality of education that students receive. This systematic and organized formation carried out in the different modalities of teaching, as the author affirms, has the same concept. It only changes the content, the focus, and the methodology. Regarding the EaD, didactic-methodological mediation is possible by using technologies, which will overcome the distance in time and space, as we will see below.

According to [18], we start from the perspective of pedagogical mediation, which is concretized by the constant re-creation of strategies during a course, based on the interrelationship of materials, activities and interactions, articulating the teaching and learning process. In other words, the process of pedagogical mediation can be understood as the art of teaching, through a systematic planning, integrating the teaching methodologies, so that the learner will be the center of the teaching and learning process.

In this context, [19] considers pedagogical mediation to be:

[...] the attitude, the behavior of the teacher who acts as a facilitator or motivator of learning, building a bridge between the learner and his learning - not a static bridge, but a "rolling

bridge", which actively collaborates to the learner reaches his or her goals.

According to the author, teachers act as a bridge between the learner and the learning, having as essential elements of this process the dialogue, the exchange of experiences, the debate and the proposition of situations. Therefore, it is necessary to understand the relationships that permeate the learning process, in order to obtain a new configuration for distance learning, which should surpasses the virtualization of the traditional classroom [18].

Thus, it is necessary to rethink the formative processes carried out at a distance and, mainly, the training of teachers in this modality, starting from the perspective of being together virtual [20]. The pedagogical mediation is the result of two processes: human and technological. The first one comes from the tutoring system and the second from the existing communication system, which is provided from the first one to enable pedagogical mediation [21]. The authors states that teachers developed a role of mediator that permeated the interactions between them and the students. In addition, it is important the teachers have attention to the actions of the students and, at the same time, putting them in movement, mobilizing them in function of knowledge and studying themes.

The mobilization of knowledge is based on the understanding the necessity of a knowledge base for the exercise of the profession. The teacher training process should provide conditions for personal and professional development through the acquisition of knowledge that favors the search for answers to the real needs posed by the educational action. Whether in face-to-face or distance learning, this mobilization takes place through a pedagogical mediation of the content and the use of technologies by the tutor.

Regarding the teaching knowledge, [8] understands as habits, attitudes, knowledge, skills, and abilities; in other words, what is commonly called knowledge, know-being and know-how. Considering the knowledge of teaching required for the development of skills, the author proposes teacher knowledge as a plural, heterogeneous knowledge, which is established specific way from varied sources and influenced by several factors. Due to the diversity of use with which they manifest themselves in the know-how and know-how of teachers approaches, these processes were classified as disciplinary, professional, curricular and experience knowledge.

The EaD teacher should use the AVA to create a space for the mobilization of knowledge, which

"stimulates thinking, challenges the student to learn and build knowledge individually or in partnership with colleagues, and allows the development of self-esteem, the sense-critic and responsible freedom" [22]. Here, the tutor is seen as mediator of the learning process, playing its role with the ICT, encourages, stimulates and challenges the student to reflect and build their knowledge collectively.

Therefore, this constructed knowledge is not reduced to mental processes; it is also a social knowledge that it obtained from the complex relationships between teachers and students. It is necessary to "situate the teacher's knowledge at the interface between the individual and the social, between the actor and the system, in order to capture its social and individual nature as a whole" [8]. Therefore, it is necessary to understand the teacher's knowledge as a toll that works with human beings and comes from several instances: from the family, school that formed it, personal culture, university, peers, and from training courses. This knowledge is plural, heterogeneous, and temporal since it is built during life and throughout the career.

The classroom is one of the main decision-making spaces taken by the teacher in all the teaching modality: distance learning or in face-to-face teaching. Therefore, it is in this space that all teaching action takes place. Therefore, it must be perceived by the teacher, through behaviors that often reveal the limitations of a precarious formation resulted from the devaluation of the teaching profession and the students, imposed by the educational policy.

[12] presents a discussion about the supervised internship at UFPI, noting that the main difficulties for the accomplishment of Internships in Distance Education are the distance between teacher and student, the shortage of schools in the rural cities of the State, besides issues related to the internet systems.

It is highlighted the need to think about the formation of teachers in EaD process, due to the numerous problems that arise in this training process. Therefore, in order to guarantee quality in the EAD, it is necessary that the institutions respect the legislation and regulations, for the respective levels and modalities of the national education. It is worth noting that in Art. 3º, Paragraph 1º, "... distance courses and programs should be designed with the same duration defined for the respective courses in the face-to-face modality" [4]. In other words, there is a concern with the organization of these courses, and how is carried out the teachers training.

Therefore, the process of pedagogical mediation in EaD (Figure 1) should involve the interaction between students, teachers and tutors in the VLE; systematic planning of the process of teaching and learning, using ICT, since the teacher/tutor is a mediator of this process, and responsible for providing the learner with knowledge.

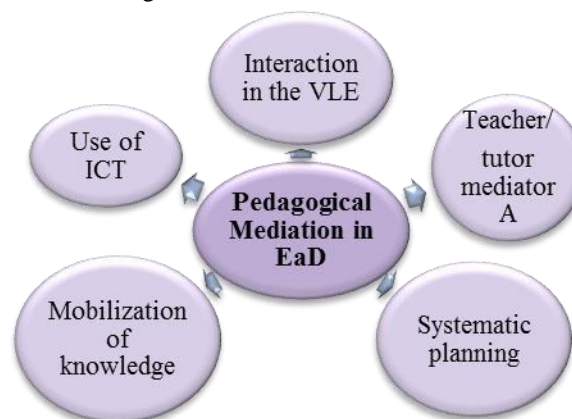


Fig.1 - Pedagogical mediation in EaD. Source: Research data, 2019.

Figure 1 shows that the process of teacher education must offer conditions for personal and professional development through the acquisition of knowledge that favors the searching for answers to the real needs resulted from the educational action. The discussion about the teacher's technical competence is imperative since the dignity of being a teacher can be maintained in the construction of the professional identity that necessarily goes through this issue.

According to [9], the formation must provide a critical-reflective perspective, with autonomy both in thinking and in acting. Therefore, it requires personal and creative investment in the construction of your professional identity. Thus, it can be inferred that everyone is capable of creating and re-creating praxis through the relationships maintained with the physical and social world. It is in this interactive and dynamic movement that happen the exchange of experiences and the sharing of knowledge in a mutual formation.

[23] corroborate their opinion that "[...] the fundamental goal of education is to create conditions for students to strengthen and constitute themselves as political individuals". Thus, it is necessary to review teacher education and instigate them by seeking for a more critical and humane pedagogy, aiming at obtaining a democratic reform guided by critical citizenship.

Therefore, we think the formation of distance teachers as a process that develops in the training teachers a language of criticism, self-reflexive and union

of theory and practice, starting from pedagogical mediation, in this process of interaction between teachers and students that defies distance learning.

IV. CONCLUSIONS

The new educational scenarios of teacher training are a reality in Brazilian life, which has been consolidating in recent decades, with the advent of ICT. Based on the assumption that people's demand for distance learning courses has expanded, the way the formative process happens also need to be discussed. In this study, our analysis focused on the teachers training process, considering how it is legitimated in our country.

In addition, mobilization of knowledge is possible in the Virtual Learning Environment (VLE), when the tutor, as mediator of this learning process, stimulates and challenges the students to reflect and build their knowledge individually or collectively with their colleagues, in this cyberspace of formation. Through the proposed reflections, the present study emerges as a contribution to the understanding of teacher education in the EaD, amid the criticisms that this training model receives in the educational scenario.

The study aimed to reflect on the formation of teachers about the perspective of EaD, portraying the initial academic formative process, since this process constitutes an epistemological field responsible for the construction of knowledge and the professional identity of the future teacher. Thus, the pedagogical mediation process must take place in order to provide the student with the necessary knowledge to teach.

Therefore, we seek to understand teacher training in the context of the distance modality and its consolidation in the educational scenario, regarding the pedagogical mediation process. The legislation LDBEN n. 9,394 / 96 and the Decree n°. 5,622/2005 have already been established on the EAD, which has been consolidating in the country in recent years, through the emergence of educational policies focused on this type of education. The purpose of expanding and internalizing the offer of courses and programs of higher education in the country, although recent, has several courses adhering to this teaching proposal in both public and private institutions.

Therefore, in order to develop teachers as transforming intellectuals, they must have a discourse in the language of criticism, so that they can recognize that they can promote change, manifesting themselves against economic, political and social injustices inside and outside schools. This training model is what we expect from EaD, which overcomes the difficulties

encountered in its course and can act in the quality of teaching, through the interactions provided by pedagogical mediation, from the perspective of being virtually together.

Finally, we emphasize that this study about teacher training in the distance modality requires the understanding of many other factors, given the complexity of this field and this modality of teaching. Our lens focused in general on the legal and formative parameters of EAD. In this sense, other studies may be carried out on the various elements of this training process, such as the curriculum or the process of teaching and learning in this and/or other contexts.

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